Mr. Jeff Eppert
Stiles Incorporated
23551 Cooper Drive
Elkhart, IN 46514

Re: 039-12863-00282
First Significant Source Modification to
Part 70 No.: T039-7432-00282

Dear Mr. Eppert:

Stiles Incorporated was issued a Title V permit on August 31, 1999 for operation of a stationary wood molding and surface coating operation. A letter requesting changes to this permit was received on October 16, 2000. Pursuant to the provisions of 326 IAC 2-7-12(d)(1) a significant source modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of two (2) surface coating machines to the existing surface coating operation (identified as EU-02) as described below:

(a) One (1) Patina Stain Machine, using an airless spray application system, identified as PAO Macc, exhausting through Stack FE10; and

(b) One (1) Compo Wood Molding Machine, using a flowcoating system, identified as Compo, exhausting through Stack CE1.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call Nishat Hydari at (973) 575-2555, ext. 3216, or call (800) 451-6027, press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
NH/EVP
cc: File - Elkhart County
U.S. EPA, Region V
Elkhart County Health Department
Air Compliance Section Inspector - Greg Wingstrom
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

PART 70 OPERATING PERMIT
OFFICE OF AIR MANAGEMENT

Stiles Incorporated
23551 Cooper Drive
Elkhart, Indiana 46514

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T039-7432-00282	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: August 31, 1999

First Administrative Amendment 039-11367-00282	Pages Affected: 4, 5, 6, 26, 27, 28, 30, 36, 37
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: October 29, 1999

First Significant Source Modification 039-12863-00282	Pages Affected: 5, 6, 31, 31a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary wood molding and surface coating operation.

Responsible Official:	Jeff Eppert, Plant Manager
Source Address:	23551 Cooper Drive, Elkhart, IN 46514
Mailing Address:	P.O. Box 1807, Elkhart, IN 46515
SIC Code:	2499
County Location:	Elkhart
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) A woodworking shop, identified as EU-01, equipped with three (3) baghouse dust collectors identified as CD-01, CD-02, and CD-03 for particulate control, exhausting through Stacks D1, D2, and D3.

(b) A wood surface coating operation, identified as EU-02, including the following:

(1) Six (6) lamination glue presses, exhausting through Stacks LE1 and LE4 and general ventilation (GV) fans LE2 and LE3;

(2) One (1) solvent stain machine using air-assisted airless spray application, identified as FE-1, using dry filters for particulate control, exhausting through Stack F1;

(3) One (1) fan coater application system, identified as FE-4, exhausting through Stack F4;

(4) One (1) Paint O'Matic machine using a vacuum coating system, identified as FE-5, exhausting through Stack F5;

(5) Two conveyor systems: one (1) conveyor servicing the Paint O'Matic, waterbased stainer, and fancoater, exhausting through Stacks F5 and FC6; the second conveyor servicing the solvent stain machine, exhausting through Stacks FC2 and FC3;

(6) Two (2) UV coaters using vacuum coating systems, identified as FE7 and FE9, exhausting through Stacks F7.1, F7.2, F9.1, F9.2, and F9.3;

(7) One (1) waterbased stainer using air-assissted airless spray application, identified as FE8, using dry filters for particulate control, exhausting through Stack 8;

(8) One (1) Patina Stain Machine, using an airless spray application system, identified as PAO Macc, exhausting through Stack FE10; and

(9) One (1) Compo Wood Molding Machine, using a flowcoating system, identified as Compo, exhausting through Stack CE1.

(c) One (1) wood fired boiler, heat input rate 2.9 MMBtu/hr, identified as EU-03, equipped with one (1) fly ash recovery unit identified as C3 for particulate control, exhausting through Stack B1.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(b) A wood surface coating operation, identified as EU-02, including the following:

(1) Six (6) lamination glue presses, exhausting through Stacks LE1 and LE4 and general ventilation (GV) fans LE2 and LE3;

(2) One (1) solvent stain machine using air-assisted airless spray application, identified as FE-1, using dry filters for particulate control, exhausting through Stack F1;

(3) One (1) fan coater application system, identified as FE-4, exhausting through Stack F4;

(4) One (1) Paint O'Matic machine using a vacuum coating system, identified as FE-5, exhausting through Stack F5;

(5) Two conveyor systems: one (1) conveyor servicing the Paint O'Matic, waterbased stainer, and fancoater, exhausting through Stacks F5 and FC6; the second conveyor servicing the solvent stain machine, exhausting through Stacks FC2 and FC3;

(6) Two (2) UV coaters using vacuum coating systems, identified as FE7 and FE9, exhausting through Stacks F7.1, F7.2, F9.1, F9.2, and F9.3;

(7) One (1) waterbased stainer using air-assissted airless spray application, identified as FE8, using dry filters for particulate control, exhausting through Stack 8-**;**

(8) One (1) Patina Stain Machine, using an airless spray application system, identified as PAO Macc, exhausting through Stack FE10; and

(9) One (1) Compo Wood Molding Machine, using a flowcoating system, identified as Compo, exhausting through Stack CE1.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The input of VOC to all of the surface coating facilities (EU-02) shall be limited to not more than 247 tons per twelve (12) consecutive month period.

(b) VOC input shall include any clean up solvent. The VOC content of waste shipped offsite may be deducted from the reported monthly VOC usage.

(c) Compliance shall be demonstrated within 30 days of the end of each month based on the total ton usage for the most recent twelve (12) month period.

(d) This usage limit is required to limit the potential to emit of VOC to less than 250 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable. If this permit is relied upon to issue subsequent permits, the limit cannot be relaxed without being reviewed to determine 326 IAC 2-2 and 40 CFR 52.21 applicability.

(e) This condition replaces Operation Condition 10 from CP 039-4259-00282, issued on July 11, 1995, because:

The original condition stated “Any change or modification which may increase potential emissions to 100 tons VOC per year or 250 tons per year for any of the other criteria pollutants shall obtain an offset or PSD permit, respectively, pursuant to 326 IAC 2-3 or 326 IAC 2-2, respectively, before such change may occur.” This limit was established when Elkhart County was classified as a nonattainment area for ozone. Elkhart County was reclassified in November 1994. The source has requested to have the source wide VOC limit increased to 249 tons per year. There is no change in rule applicability as a result of this increase.

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Significant Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Stiles Incorporated
Source Location:	23551 Cooper Drive, Elkhart, IN 46514
County:	Elkhart
SIC Code:	2499
Operation Permit No.:	T039-7432-00282
Operation Permit Issuance Date:	August 31, 1999
Significant Source Modification No.:	039-12863-00282
Permit Reviewer:	NH/EVP

The Office of Air Management (OAM) has reviewed a modification application from Stiles Incorporated relating to the operation of stationary wood molding and surface coating operation.

History

On October 16, 2000, Stiles Incorporated submitted an application to the OAM requesting a modification to their existing Title V which was issued on August 31, 1999. The modification includes the addition of two surface coating machines (a Patina Stain Machine and a Compo Machine) to their existing surface coating operation (identified as EU-02). The Title V permit limits the VOC emissions from the surface coating operation (EU-02) to less than 247 tons per year, single HAP emissions from the surface coating operation (EU-02) to less than 9.4 tons per year and total HAP emissions from the surface coating operation (EU-02) to less than 24 tons per year. The source has agreed to maintain these limit even with the addition of the two new surface coating machines to their existing surface coating operation (EU-02).

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-7-5(16):

(a) One (1) Patina Stain Machine, using an airless spray application system, identified as PAO Macc, exhausting through Stack FE10; and

(b) One (1) Compo Wood Molding Machine, using a flowcoating system, identified as Compo, exhausting through Stack CE1.

Existing Approvals

The source was issued a Part 70 Operating Permit (T039-7432-00282) on August 31, 1999. The source has since received the following:

(a) First Administrative Amendment No.: 039-11367-00282, issued on October 29, 1999.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
CE1	Compo Wood Molding Machine	25	24"	10,000	70
FE10	Patina Stain Machine	25	12"	3,100	70

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 16, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 2).

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	17.97
PM-10	17.97
SO_2	0.00
VOC	117.81
CO	0.00
NO_x	0.00

HAP's	Potential To Emit (tons/year)
2-Butoxyethanol	16.74
TOTAL	16.74

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) because the source has the potential to emit VOC greater than 25 tons per year. This modification will give the source approval to construct the new emission units. An Administrative Amendment (AA#039-13564-00282) will be issued and will incorporate the source modification into the Part 70

permit and give the source approval to operate the new emission units.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as maintenance attainment for ozone.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Existing Title V source	135.30	128.40	0.10	247.00	3.20	0.70	24.00
Modification (Surface Coating Operation (EU-02))*	17.97	17.97	0.00	see note below*	0.00	0.00	see note below*
Total Emissions	less than 250	less than 250	less than 250	less than 250	less than 250	less than 250	less than 25

* The surface coating operation (EU-02) includes the addition of the two (2) new surface coating machines (a Patina Stain Machine and a Compo Machine). The Title V permit limits the VOC emissions from the surface coating operation (EU-02) to less than 247 tons per year, single HAP emissions from the surface coating operation (EU-02) to less than 9.4 tons per year and total HAP emissions from the surface coating operation (EU-02) to less than 24 tons per year. The source has agreed to maintain these limit even with the addition of the two new surface coating machines to their existing surface coating operation (EU-02). Thus, the source will still maintain its PSD minor source status.

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 12, 40 CFR Part 63) applicable to this source. This source is not subject to the requirements of 40 CFR Part 63, Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations), because the source has elected to take a source wide limit of less than 10 tons per year for a single hazardous air pollutant (HAP) and less than 25 tons per year for a combination of HAPs. Therefore, the source is not a major source for HAPs and Subpart JJ does not apply.

(c) The requirements of 40 CFR 64 (Compliance Assurance Monitoring) do not apply to this source that is required to obtain a part 70 permit as this source does not use a control device to achieve compliance with any such emission limitation or standard.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart county and has the potential to emit more than (ten (10) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the two (2) surface coating machines (Patina Stain Machine and Compo Machine) shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets (Patina Stain Machine and Compo Machine) shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating

Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system. This source (Patina Stain Machine) uses air assisted airless spray application, therefore, the source is in compliance with this rule.

The Compo Machine uses flowcoating, therefore, the source is in compliance with this rule.

Compliance Requirements

Permits issued under 326 IAC 2-7are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no compliance monitoring requirements for the Compo machine because it uses flowcoating.

The compliance monitoring requirements applicable to the Patina Stain Machine are as follows:

1. The Patina Stain Machine (identified as PAO Macc) has applicable compliance monitoring conditions as specified below:

   (a) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the Patina Stain Machine (PAO Macc) must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Title V).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached calculations for detailed air toxic calculations (Appendix A, page 2).

Changes Proposed

The responsible official in Section A.1 is being changed as requested by the source.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary wood molding and surface coating operation.

Responsible Official:	~~**David L. Gawthrop, Treasurer**~~ **Jeff Eppert, Plant Manager**
Source Address:	**23551 Cooper Drive, Elkhart, IN 46514**
Mailing Address:	**P.O. Box 1807, Elkhart, IN 46515**
~~Telephone Number:~~	~~**219-262-3671**~~
SIC Code:	**2499**
County Location:	**Elkhart**
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules

The two (2) new surface coating machines are being added to Section A.2(b) as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

(b) A wood surface coating operation, identified as EU-02, including the following:

(1) Six (6) lamination glue presses, exhausting through Stacks LE1 and LE4 and general ventilation (GV) fans LE2 and LE3;

(2) One (1) solvent stain machine using air-assisted airless spray application, identified as FE-1, using dry filters for particulate control, exhausting through Stack F1;

(3) One (1) fan coater application system, identified as FE-4, exhausting through Stack F4;

(4) One (1) Paint O'Matic machine using a vacuum coating system, identified as FE-5, exhausting through Stack F5;

(5) Two conveyor systems: one (1) conveyor servicing the Paint O'Matic, waterbased stainer, and fancoater, exhausting through Stacks F5 and FC6; the second conveyor servicing the solvent stain machine, exhausting through Stacks FC2 and FC3;

(6) Two (2) UV coaters using vacuum coating systems, identified as FE7 and FE9, exhausting through Stacks F7.1, F7.2, F9.1, F9.2, and F9.3;

(7) One (1) waterbased stainer using air-assissted airless spray application, identified as FE8, using dry filters for particulate control, exhausting through Stack 8~~.~~**;**

(8) One (1) Patina Stain Machine, using an airless spray application system, identified as PAO Macc, exhausting through Stack FE10; and

(9) One (1) Compo Wood Molding Machine, using a flowcoating system, identified as Compo, exhausting through Stack CE1.

The two (2) new surface coating machines are being added to the facility description in Section D.2 as follows:

Facility Description [326 IAC 2-7-5(15)]

(b) A wood surface coating operation, identified as EU-02, including the following:

(1) Six (6) lamination glue presses, exhausting through Stacks LE1 and LE4 and general ventilation (GV) fans LE2 and LE3;

(2) One (1) solvent stain machine using air-assisted airless spray application, identified as FE-1, using dry filters for particulate control, exhausting through Stack F1;

(3) One (1) fan coater application system, identified as FE-4, exhausting through Stack F4;

(4) One (1) Paint O'Matic machine using a vacuum coating system, identified as FE-5, exhausting through Stack F5;

(5) Two conveyor systems: one (1) conveyor servicing the Paint O'Matic, waterbased stainer, and fancoater, exhausting through Stacks F5 and FC6; the second conveyor servicing the solvent stain machine, exhausting through Stacks FC2 and FC3;

(6) Two (2) UV coaters using vacuum coating systems, identified as FE7 and FE9, exhausting through Stacks F7.1, F7.2, F9.1, F9.2, and F9.3;

(7) One (1) waterbased stainer using air-assissted airless spray application, identified as FE8, using dry filters for particulate control, exhausting through Stack 8~~.~~**;**

(8) One (1) Patina Stain Machine, using an airless spray application system, identified as PAO Macc, exhausting through Stack FE10; and

(9) One (1) Compo Wood Molding Machine, using a flowcoating system, identified as Compo, exhausting through Stack CE1.

The Title V permit limits the VOC emissions from the surface coating operation (EU-02) to less than 247 tons per year, single HAP emissions from the surface coating operation (EU-02) to less than 9.4 tons per year and total HAP emissions from the surface coating operation (EU-02) to less than 24 tons per year. The source has agreed to maintain these limits even with the addition of the two new surface coating machines to their existing surface coating operation (EU-02). Thus, Conditions D.21 (PSD Minor Limit) and D.2.2 (VHAP Minor Source Limit / Wood Furniture NESHAP) will not be revised.

Conclusion

The operation of this stationary wood molding and surface coating operation shall be subject to

the conditions of the attached proposed **Significant Permit Revision No. 039-12863-00282**.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Stiles Incorporated
Address City IN Zip: 23551 Cooper Drive, Elkhart, IN 46514
Significant Source Modification: 039-12863
Plt ID: 039-00282
Reviewer: NH/EVP

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
White Aqua Patina	8.91	62.56%	46.65%	15.9%	49.92%	32.37%	0.00100	4920.000	2.83	1.42	6.97	167.39	30.55	17.97	4.38	75%
Compo Material	7.33	50.91%	1.40%	49.5%	1.23%	47.48%	0.00500	1098.000	3.67	3.63	19.92	478.17	87.27	0.00	7.64	100%
State Potential Emissions			**Add worst case coating to all solvents**								**26.90**	**645.56**	**117.81**	**17.97**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Stiles Incorporated
Address City IN Zip: 23551 Cooper Drive, Elkhart, IN 46514
Significant Source Modification #: 039-12863
Plt ID: 039-00282
Permit Reviewer: NH/EVP

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % 2-Butoxyethanol	2-Butoxyethanol Emissions (ton/yr)
White Aqua Patina	8.91	0.001000	4920.00	8.72%	16.74

Total State Potential Emissions **16.74**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs